```
       RAW SEQUENCE LISTING                DATE: 04/23/2001
       PATENT APPLICATION:  US/09/821,883  TIME: 13:12:41

           Input Set  : A:\7636-0022.30-SEQLIST.txt
           Output Set: N:\CRF3\04232001\I821883.raw

    4 <110> APPLICANT: Laus, Reiner
    5         Vidovic, Damir
    6         Graddis, Thomas
    8 <120> TITLE OF INVENTION: Compositions and Methods for Dendritic
    9        Cell-Based Immunotherapy
   12 <130> FILE REFERENCE: 7636-0022.30
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/821,883
C--> 15 <141> CURRENT FILING DATE: 2001-03-30
   17 <150> PRIOR APPLICATION NUMBER: US 60/193,504
   18 <151> PRIOR FILING DATE: 2000-03-30
   20 <160> NUMBER OF SEQ ID NOS: 30
   22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
   24 <210> SEQ ID NO: 1
   25 <211> LENGTH: 555
   26 <212> TYPE: PRT
   27 <213> ORGANISM: Artificial Sequence
   29 <220> FEATURE:
   30 <223> OTHER INFORMATION: HER500 construct
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   35 Gly Phe Leu Phe Leu Leu Phe Phe Trp Leu Asp Arg Ser Val Leu Ala
   36             20                  25                  30
   37 Lys Glu Leu Ala Arg Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr
   38         35                  40                  45
   39 Asp Met Lys Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met
   40     50                  55                  60
   41 Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu
   42 65                  70                  75                  80
   43 Leu Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile
   44             85                  90                  95
   45 Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln
   46             100                 105                 110
   47 Val Pro Leu Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu
   48         115                 120                 125
   49 Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn
   50     130                 135                 140
   51 Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln
   52 145                 150                 155                 160
   53 Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg
   54             165                 170                 175
   55 Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe
   56             180                 185                 190
   57 His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser
   58         195                 200                 205
   59 Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp
   60     210                 215                 220
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ENTERED

#2

RAW SEQUENCE LISTING   DATE: 04/23/2001
PATENT APPLICATION: US/09/821,883   TIME: 13:12:41

Input Set : A:\7636-0022.30-SEQLIST.txt
Output Set: N:\CRF3\04232001\I821883.raw

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 62 225                 230             235                     240
 63 Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His
 64             245             250                 255
 65 Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu
 66         260             265                 270
 67 Ala Cys Leu His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro
 68         275             280                 285
 69 Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro
 70     290             295                 300
 71 Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr
 72 305             310             315                     320
 73 Asn Tyr Leu Ser Thr Asp Val Gly Ser Gly Ala Gly Gly Met Val His
 74             325             330                 335
 75 His Arg His Arg Ser Ser Ser Thr Arg Ser Gly Gly Gly Asp Leu Thr
 76         340             345                 350
 77 Leu Gly Leu Glu Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro Leu Ala
 78     355             360                 365
 79 Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Gly Met
 80     370             375                 380
 81 Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His Asp Pro Ser Pro
 82 385             390             395                     400
 83 Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr
 84             405             410                 415
 85 Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val
 86         420             425                 430
 87 Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro
 88         435             440                 445
 89 Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr
 90     450             455             460
 91 Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly
 92 465             470             475                     480
 93 Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala
 94             485             490                 495
 95 Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu
 96         500             505                 510
 97 Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr
 98         515             520                 525
 99 Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp
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101 Val Pro Ala Ala Ala His His His His His
102 545                 550             555
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 690
106 <212> TYPE: PRT
107 <213> ORGANISM: Artificial Sequence
109 <220> FEATURE:
110 <223> OTHER INFORMATION: HER500-hGM-CSF construct
112 <400> SEQUENCE: 2
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RAW SEQUENCE LISTING   DATE: 04/23/2001
PATENT APPLICATION: US/09/821,883   TIME: 13:12:41

Input Set : A:\7636-0022.30-SEQLIST.txt
Output Set: N:\CRF3\04232001\I821883.raw

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113 Met Arg Ala Ala Pro Leu Leu Leu Ala Arg Ala Ala Ser Leu Ser Leu
114  1               5                   10                  15
115 Gly Phe Leu Phe Leu Leu Phe Phe Trp Leu Asp Arg Ser Val Leu Ala
116              20                  25                  30
117 Lys Glu Leu Ala Arg Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr
118          35                  40                  45
119 Asp Met Lys Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met
120      50                  55                  60
121 Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu
122 65                  70                  75                  80
123 Leu Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile
124              85                  90                  95
125 Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln
126              100                 105                 110
127 Val Pro Leu Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu
128          115                 120                 125
129 Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn
130      130                 135                 140
131 Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln
132 145                 150                 155                 160
133 Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg
134              165                 170                 175
135 Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe
136              180                 185                 190
137 His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser
138          195                 200                 205
139 Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp
140      210                 215                 220
141 Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala
142 225                 230                 235                 240
143 Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His
144              245                 250                 255
145 Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu
146              260                 265                 270
147 Ala Cys Leu His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro
148          275                 280                 285
149 Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro
150      290                 295                 300
151 Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr
152 305                 310                 315                 320
153 Asn Tyr Leu Ser Thr Asp Val Gly Ser Gly Ala Gly Gly Met Val His
154              325                 330                 335
155 His Arg His Arg Ser Ser Ser Thr Arg Ser Gly Gly Gly Asp Leu Thr
156          340                 345                 350
157 Leu Gly Leu Glu Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro Leu Ala
158          355                 360                 365
159 Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Gly Met
160      370                 375                 380
161 Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His Asp Pro Ser Pro
```

```
162 385                   390                   395                   400
163 Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr
164          .          405               410               415
165 Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val
166              420               425               430
167 Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro
168          435               440               445
169 Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr
170      450               455               460
171 Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly
172 465               470               475               480
173 Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala
174              485               490               495
175 Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu
176          500               505               510
177 Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr
178          515               520               525
179 Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp
180      530               535               540
181 Val Pro Ala Ala Ala Pro Ala Arg Ser Pro Ser Pro Ser Thr Gln Pro
182 545               550               555               560
183 Trp Glu His Val Asn Ala Ile Gln Glu Ala Arg Arg Leu Leu Asn Leu
184              565               570               575
185 Ser Arg Asp Thr Ala Ala Glu Met Asn Glu Thr Val Glu Val Ile Ser
186          580               585               590
187 Glu Met Phe Asp Leu Gln Glu Pro Thr Cys Leu Gln Thr Arg Leu Glu
188          595               600               605
189 Leu Tyr Lys Gln Gly Leu Arg Gly Ser Leu Thr Lys Leu Lys Gly Pro
190      610               615               620
191 Leu Thr Met Met Ala Ser His Tyr Lys Gln His Cys Pro Pro Thr Pro
192 625               630               635               640
193 Glu Thr Ser Cys Ala Thr Gln Ile Ile Thr Phe Glu Ser Phe Lys Glu
194              645               650               655
195 Asn Leu Lys Asp Phe Leu Leu Val Ile Pro Phe Asp Cys Trp Glu Pro
196          660               665               670
197 Val Gln Glu Gly Ala Pro Pro Pro Pro Ala Ala Ala His His His His
198          675               680               685
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200      690
202 <210> SEQ ID NO: 3
203 <211> LENGTH: 564
204 <212> TYPE: PRT
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: HER500* construct
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212 1 ·                  5               10               15
213 Gly Phe Leu Phe Leu Leu Phe Phe Trp Leu Asp Arg Ser Val Leu Ala
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RAW SEQUENCE LISTING   DATE: 04/23/2001
PATENT APPLICATION: US/09/821,883   TIME: 13:12:41

Input Set : A:\7636-0022.30-SEQLIST.txt
Output Set: N:\CRF3\04232001\I821883.raw

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214              20            25            30
215 Lys Glu Leu Ala Arg Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr
216          35            40            45
217 Asp Met Lys Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met
218      50            55            60
219 Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu
220 65            70            75            80
221 Leu Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile
222          85            90            95
223 Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln
224          100           105           110
225 Val Pro Leu Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu
226          115           120           125
227 Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn
228      130           135           140
229 Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln
230 145           150           155           160
231 Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg
232          165           170           175
233 Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe
234          180           185           190
235 His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser
236          195           200           205
237 Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp
238      210           215           220
239 Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala
240 225           230           235           240
241 Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His
242          245           250           255
243 Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu
244          260           265           270
245 Ala Cys Leu His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro
246          275           280           285
247 Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro
248      290           295           300
249 Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr
250 305           310           315           320
251 Asn Tyr Leu Ser Thr Asp Val Gly Ser Ala Ser Ile Ile Asn Phe Glu
252          325           330           335
253 Lys Leu Gly Ala Gly Gly Met Val His His Arg His Arg Ser Ser Ser
254          340           345           350
255 Thr Arg Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu
256          355           360           365
257 Glu Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser
258      370           375           380
259 Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys Gly Leu Gln
260 385           390           395           400
261 Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr Ser Glu Asp
262          405           410           415
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VERIFICATION SUMMARY   DATE: 04/23/2001
PATENT APPLICATION: US/09/821,883   TIME: 13:12:42

 Input Set : A:\7636-0022.30-SEQLIST.txt
 Output Set: N:\CRF3\04232001\I821883.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date